

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 17-42 are currently pending. In the outstanding Office Action, Claims 17-42 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kanekar et al. (U.S. Patent No. 6,751,191, herein "Kanekar").

In response to the rejection of Claims 17-42 under 35 U.S.C. § 102(e), Applicant respectfully requests reconsideration of the rejection and traverses the rejection for the reasons set forth below.

Applicant's invention, as recited in Claim 17, is directed to a redundant routing system, including: (1) a first routing unit configured to manage input and output data; (2) a second routing unit configured to manage input and output data; (3) a network interface connecting the first and second routing units; and (4) ***a standby bus interface connecting the first and second routing units to each other***; wherein, when the first routing unit is managing the input and output data, ***the second routing unit is configured to detect a failure of the first routing unit by monitoring both the network and standby bus interfaces***; and wherein, when the second routing unit detects a failure of the first routing unit, ***the second routing unit is configured to deactivate the first routing unit*** so that the first routing unit no longer manages the input and output data and the second routing unit is further configured to start managing the input and output data.

The Office Action asserts at page 3 that Kanekar teaches "a standby bus interface connecting the first and second routing units to each other" based on the line between items 914 and 916 of Kanekar's Fig. 9. Applicant respectfully disagrees and submits that (1) the cited line connects the forwarding engines 914 and 916, ***not*** the routing units, to each other

and (2) there is no teaching or suggestion in Kanekar that the line in question is a standby bus interface.

The Office Action further asserts at page 3 that Kanekar teaches “wherein, when the first routing unit is managing the input and output data, the second routing unit is configured to detect a failure of the first routing unit by monitoring both the network and standby bus interfaces” based on column 14, lines 14-29. Applicant respectfully disagrees and submits that Kanekar states that “a failure of one of the routers is detected by another router when a specified number of consecutive ‘hello’ packets are not received during a period of time. Since the routers communicate in the backplane of the device, a failure of one of the routers may be detected in hardware.”¹ Therefore, Kanekar’s routers only communicate with respect to the failure determination “in the backplane of the device” so that the second routing unit is not configured “to detect a failure of the first routing unit by monitoring *both* the network and standby bus interfaces.”

The Office Action further asserts at page 3 that Kanekar teaches “wherein, when the second routing unit detects a failure of the first routing unit, the second routing unit is configured to deactivate the first routing unit so that the first routing unit no longer manages the input and output data and the second routing unit is further configured to start managing the input and output data” based on column 14, lines 14-29. Applicant respectfully disagrees and submits that Kanekar states that “the master runs the layer 2 spanning tree protocol until the master fails, at which time the slave starts running the layer 2 spanning tree protocol”² and thus does not teach or suggest that the slave “is configured to *deactivate*” the master. Absent such a specific teaching or suggestion, and particularly in light of Kanekar Figs. 12A-12D which do not disclose any operation of the slave onto the master except in contextually unrelated Fig. 12B directed to a failing slave, one of ordinary skill in the art would interpret

¹ Kanekar, column 7, lines 25-30.

² Kanekar, column 7, lines 43-46.

Kanekar as teaching that the slave detects the failure of the master and takes over, while the master either remains in its failure state, not necessarily deactivated, or perhaps deactivated by its own failure, but never deactivated by the slave.

Independent Claim 39 recites features similar to those of independent Claim 17. It is thus respectfully submitted that the above arguments also apply to independent Claim 39.

Therefore, Kanekar fails to teach or suggest every feature recited in Applicants' independent Claims 17 and 39 so that Claims 17-42 are patentably distinct over Kanekar. Therefore, Applicant respectfully traverses and requests reconsideration of the rejection based on Kanekar.³

In addition, Applicant respectfully disagrees with several assertions in the Office Action regarding the dependent claims. For example, the Office Action asserts at page 4 that Kanekar teaches the "wherein said first and second routing units have identical functions and include identical software and configuration files" feature of Claim 18 based on column 4, lines 25-27, and column 6, lines 40-61. Applicant respectfully disagrees and submits that the cited passages may support the teaching of identical configuration files, but clearly fail to teach or suggest "identical software *and* configuration files." Different software could use identical configuration files, and software can sometimes run without configuration files, so that a teaching of identical configuration files does not meet one of identical software and configuration files.

The Office Action further asserts at page 4 that Kanekar teaches the "at least one serial link connecting said first and second routing units to at least one other system" feature of Claim 19 based on Figs. 1 and 5. Applicant respectfully disagrees and submits that Kanekar's Fig. 1 shows elements 112, 116, 118, and 120 connected in series via network

³ See MPEP 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

segments 114. However, the network segments are not actually “serial links” even if the general arrangement of Fig. 1 can be colloquially described as serial. One can connect nodes “serially” using a variety of types internode links, but Kanekar does not teach or suggest the use of what is well understood in the art as a “serial link.” To that effect, Applicant’s specification mentions in a non-limiting passage “[s]tandard serial links, using protocols such as X25, HDLC and BSC for example.”⁴ Applicant respectfully points out that in view of Applicant’s specification, a person of ordinary skill in the art would not see “serial links” in Kanekar’s Fig. 1. Further, Kanekar’s Fig. 5 discloses a connection to VLANs, but Kanekar does not teach or suggest that this connection would use serial links.

The Office Action further asserts at page 4 that Kanekar teaches the “at least one serial link comprises at least one Y-split cable” feature of Claim 20 based on Fig. 15 and column 17, lines 36-56. Applicant respectfully disagrees and submits that (1) Kanekar does not teach or suggest serial links to begin with and (2) the cited line between elements 1468 and 1415, whatever type of connection it may corresponds to, is straight and not Y-split. Further, the cited passage mentions a number of connections, including Ethernet, ATM, HSSI, POS, FDDI, none of which relate, or are asserted to relate, to a Y-split cable.

The Office Action further asserts at page 4 that Kanekar teaches the “said first routing unit deactivates itself and activates said second routing unit by a change in an impedance of at least one input/output serial port” feature of Claim 22 based on Figs. 12 and 14, and column 11, line 55 – column 12, line 55. In particular, the Office Action identifies the “back plane signal” as analogous to the claimed change. Applicant respectfully disagrees and submits that Kanekar states that “a failure of one of the routers is detected by another router when a specified number of consecutive ‘hello’ packets are not received during a period of time. Since the routers communicate in the backplane of the device, a failure of one of the

⁴ Specification, page 1, lines 28-29.

routers may be detected in hardware”⁵ so that the backplane signal carries ‘hello’ packets and does not operate by any change in impedance. Along the same lines, whereas a port may be blocked in Kanekar, as stated in the Office Action at page 5 regarding Claim 23, the cited blockage does not relate to a role in the transfer between the master and the slave, but only to the status of all input-output ports which are synchronized at block 1102 (which synchronization occurs prior to any failure).

The Office Action further asserts at page 5 that Kanekar teaches the “said second routing unit deactivates said first routing unit by sending a reset command to said first routing unit via the standby bus, said reset command executing a reset algorithm on said first routing unit” feature of Claim 24 based on Figs. 12 and 14, and column 11, line 55 – column 12, line 55. Applicant respectfully disagrees and submits that (1) Kanekar’s slave does not actually deactivate the master; (2) no reset command is disclosed in the cited figures and passage of Kanekar; and (3) no reset algorithm is executed on Kanekar’s master.

The Office Action further asserts at page 5 that Kanekar teaches the “wherein polling messages are exchanged via said network and standby bus interfaces, said polling messages carrying information relevant to detecting said failure” feature of Claim 25 based on Fig. 5 and column 7, lines 17-48. Applicant respectfully disagrees and submits that Kanekar exchanges “hello” messages in the backplane signal, as discussed above, but there is no redundancy, i.e., Kanekar’s messages are not exchanged via both “said network *and* standby bus interfaces.”

The Office Action further asserts at page 6 that Kanekar teaches the “Open Communication Mode (OCM)” feature of Claim 33 based on column 17, lines 14-56. Applicant respectfully disagrees and submits that the cited passages explicitly mentions numerous modes or protocols, including Internetwork Operating System, DSL, ATM, HSSI,

⁵ Kanekar, column 7, lines 25-30.

POS, and FDDI. However, there is no mention or suggestion of OCM which was specifically claimed.

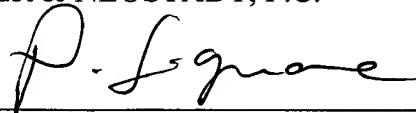
The Office Action further asserts at page 6 that Kanekar teaches the "alert protocol to warn of a possible failure" feature of Claim 34 based on the "back plan signal." Applicant respectfully disagrees and submits that the Office Action already resorted to the "back plan signal" as teaching the detection of failure. A feature of Kanekar, which is already asserted to teach a first feature of Applicant's invention, cannot properly meet a second, distinct and additionally claimed feature of Applicant's invention. Furthermore, the "back plane signal" of Kanekar, as discussed above, carries "hello" messages which indicate a failure "when a specified number of consecutive 'hello' packets are not received during a period of time" and not an alert indicating the *possibility* of a failure.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 17-42 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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